RECORDS OF TASMANIAN CETACEA: No. I NOTES ON VARIOUS STRANDINGS AT AND NEAR STANLEY, NORTH WESTERN TASMANIA

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PLATES VIII-IX

ABSTRACT

Under the general title given above it is proposed, from time to time, to place on record some observations on whales stranded on the Tasmanian eoast. No systematic records of strandings have hitherto been kept, but it is known that on various parts of our coastline, particularly perhaps on the North West, many whales have come ashore, both singly and in schools. In many eases little detailed information is now available. In several instances, however, the writer has had an opportunity of examining the specimens; and No. II of this series (in the press) provides measurements and other observations on a large school of the Pilot Whale, Globicephalus melas (Traill, 1809) that eame ashore at Stanley in October, 1935, while data on stranded speeimens of the False Killer, Pseudorca crassidens (Owen, 1846), and the Pigmy Right Whale, Caperea marginata (Gray, 1846), await publication.

The present paper, which is largely of an introductory eharacter, records some strandings over a number of years at and near Stanley, North West Coast, and gives a general account of the locality. The list of species of Cetacea accredited to Tasmania is discussed, and a key to aid in the identification of our whales is provided.

The present paper gives a general account of Stanley, North West Coast, and vicinity, the site of numerous cetacean strandings, and records some miscellaneous notes on whales that have come ashore in this region. It is proposed in subsequent contributions, to which this paper provides an introduction, to deal in detail with strandings that have come under the writer's personal observation.

STANLEY AND VICINITY

Stanley, a township of some five hundred inhabitants, is situated on the peninsula of Circular Head, approximately in Lat. 40° 46′ S., Long. 145° 17′ E., lying nearly west north-west of Launceston, from which it is distant 147 miles by road, 1567 miles by rail. The general position of Stanley is shown in Plate VIII,

fig. 1; while fig. 2, in the same plate, provides a sketch map of Circular Head and vicinity. The greater part of the township extends along the inland, or southern half of the base of a large, mainly basaltic, but partly doleritic formation, the Nut, that rises, roughly in the form of an ellipsoid truncated in its lower fourth, to a height of some 450 feet above sea-level. Flanked as it is on each side by deep gulf-like indentations of the coast that vary with the state of the tide from large, wide-mouthed, open bays to areas occupied mainly by banks, islands, and spits of sand, and, further eastward and westward, bordered by long sandy beaches, the peninsula and its neighbourhood form a treacherous region in which Cetaeea venturing near the shore, particularly into the inlets, at high tide are clearly liable to become trapped by being stranded on the extensive areas of sand exposed, with surprising suddenness, by the retreating sea.

A few miles from Stanley lics Perkins Island, which consists of little more than a flattish, partly scrub-covered mass of sandhills, about four miles in greatest length, and a mile and three-quarters in greatest width. From a long, low sandy point, separated from the south-eastern corner of the island by a narrow opening (one of the entrances to Duck Bay, into which discharges the Duck River, near the mouth of which stands the township of Smithton), a sandy beach runs eastward for about seven miles towards the Circular Head isthmus. Perkins Island, the scene in 1911 of a notable stranding of Sperm Whales, *Physeter catodon* Linné, 1758, is thus an integral part of the general extensive system of beaches, spits, and permanent and temporary sand-islets that characterises Stanley itself and the adjacent coastline on either side. Two or three miles to the north-west of Perkins Island is the much larger Robbins Island (approximate area 24,500 acres).

CETACEA RECORDED FROM TASMANIA

For convenience of reference, a list of Cetacea recorded from Tasmania, or believed to occur in our waters, is given below. The list is based on the synopsis of Tasmanian Vertebrates by Lord and Scott (1924), and various papers on Cetacea by these authors; the Australian check-list of mammals by Iredale and Troughton (1934); and a survey of Tasmanian whales by Pearson (1936).

Order CETACEA
Suborder MYSTACOCETI
Family BALAENIDAE
Genus Balaena Linné, 1758

No. 1. Balaena australis Desmoulins, 1822

SOUTHERN RIGHT WHALE

Cosmopolitan. Included by Lord and Scott (p. 293), and by Pearson (p. 166), who observes 'Governor Collins, writing to Sir John Banks from Hobart Town in July, 1804, states that for six weeks the Derwent estuary had been "full of the whales called by the whalers the Right or Black Whale". Listed as Tasmanian by Iredale and Troughton (p. 56) as B. antipodum Gray, 1843.

Family CAPEREIDAE

Genus Caperea Gray, 1864

No. 2. Caperea marginata (Gray, 1846)

PIGMY RIGHT WHALE

Lord and Scott (p. 295) record (as Neobalaena marginata) a specimen stranded at Kelso Bay, Tamar Heads, Northern Tasmania: the skull, and a skull from Flinders Island, in this Museum. Iredalc and Troughton (p. 56) include Tasmania in distribution. 'Recorded from New Zealand and the southern half of the Australian coast. Probably occurs throughout the Australian portion of the sub-antarctic seas' (Pearson, p. 167): no specific Tasmanian record cited. Two local strandings recorded below. Recorded from South Australia by Hale (1931 (b)).

Family BALAENOPTERIDAE

Genus Balaenoptera Lacépède, 1804

No. 3. Balaenoptera musculus (Linné, 1758)

BLUE WHALE, SULPHUR BOTTOM, SIBBALD'S RORQUAL

Included by Lord and Scott (p. 297) as *B. sibbaldi* (Gray, 1847), the species discussed under the heading *B. musculus* (p. 298) being probably *B. physalus* (Linné, 1758): these authors suggest a reference in *The Hobart Town Gazette* of 6th May, 1825 may relate to the present species. Not recorded from Tasmania by Iredale and Troughton. 'This form undoubtedly frequents Tasmanian waters' (Pearson, p. 168). Recorded from South Australia by Waite (1919, 1926).

No. 4. Balaenoptera physalus (Linné, 1758)

FIN WHALE, FINBACK, FINNER, RAZORBACK, COMMON RORQUAL

No published Tasmanian records. Lord and Scott's entry (p. 298) of B. musculus Linné probably refers to this species. Listed by Iredale and Troughton (p. 58) from Queensland and Victoria; while Pearson (p. 170) remarks 'undoubtedly this species is found in Tasmanian waters and in Australian seas generally'.

No. 5. Balaenoptera acutorostrata Lacépède, 1804

LESSER PIKED WHALE, LESSER RORQUAL

Included by Lord and Scott (p. 299) and by Pearson (p. 171): in both cases without specific Tasmanian records. Iredale and Troughton (p. 58) give Tasmania (as only Australian locality).

No. 6. Balaenoptera borealis (Lesson, 1828)

SEI WHALE, RUDOLPHI'S RORQUAL

No Tasmanian records: not listed by Lord and Scott, or by Iredale and Troughton. Pearson notes there are no records of specimens washed ashore on Australian coasts; but, having observed that examples have been secured in New Zealand, and having cited Lillie (1915) on records from seas south of Australia in parallels 41°-44° S., remarks (p. 171) 'we are justified in including this species in the Tasmanian list'.

Genus Megaptera Gray, 1846

No. 7. Megaptera nodosa (Bonnaterre, 1789)

HUMPBACK

Listed as *M. longimana* (Rudolphi, 1832) by Lord and Scott (p. 295); as *M. australis* (Lesson, 1828) by Iredale and Troughton (p. 58); as *M. nodosa* (Bonnaterre, 1789) by Pearson (p. 172). Lord and Scott note 'a few bones of a pectoral limb' from Bass Strait; Iredale and Troughton list five Australian States, including Tasmania; Pearson observes 'recorded from all parts of the Australian coast'.

Suborder ODONTOCETI

Family PHYSETERIDAE

Genus Physeter Linné, 1758

No. 8. Physeter catodon Linné, 1758

SPERM WHALE, CACHELOT

Listed by Lord and Scott (p. 279) as *P. macrocephalus* Linné, 1758. Iredale and Troughton (p. 59), who recognize a distinct southern species of Sperm Whale, *P. australasianus* Desmoulins, 1822, give its recorded Australian distribution as New South Wales only. Pearson (p. 175) states 'recorded on many occasions from Australian and Tasmanian waters', and cites the well-known stranding of a school at Perkins Island in 1911 (see below). An additional stranding at Stanley recorded below. Three whales, stated to be of this species, captured off the East Coast by the *Albion*, one of the two transport ships of the original settlement of Tasmania (then Van Diemen's Land) in 1803.

Genus Kogia Gray, 1846

No. 9. Kogia breviceps (Blainville, 1838)

PIGMY, OR SHORT-HEADED, SPERM WHALE

Lord and Scott (p. 280) mention a mandible in the Tasmanian Museum, Hobart, but state that it lacks authentic data as regards locality. Iredale and Troughton (p. 59) include Tasmania in distribution. 'Recorded from Tasmania' (Pearson, p. 177).

Family ZIPHIIDAE

Genus Hyperoodon Lacépède, 1804

No. 10. Hyperoodon planifrons Flower, 1882

BOTTLE-NOSED WHALE

No published Tasmanian records of *Hyperoodon*. *H. planifrons* Flower, 1882 recorded from Western Australia (type-locality), and (Hale, 1931 (a)) from South Australia. 'It may be taken for granted, however, that representatives of such genera as *Ziphius*, *Hyperoodon*, *Mesoplodon*, and *Berardius* visit Tasmanian seas, but probably only at intervals' (Lord and Scott, p. 281). Not noted by Pearson.

Genus Ziphius Cuvier, 1823

No. 11. Ziphius cavirostris Cuvier, 1823

CUVIER'S BEAKED WHALE, GOOSE-BEAKED WHALE

Listed as Tasmanian by Lord and Scott (1924, p. 285), who earlier (1920, p. 23, pl. X) gave a description and illustration of a skull from Port Arthur, South East Coast, and later (1928, p. 156) described an ossified mesorostral of Z. cavirostris (or sp.) from Preservation Island, Bass Strait (Pleistocene?). 'Recorded from Australia, including Tasmania and New Zealand' (Pearson, p. 178). Iredale and Troughton (p. 61) recognize a distinct southern species, Z. chathamiensis (Hector, 1873), whose distribution includes Tasmania.

Genus Mesoplodon Gervais, 1850

No. 12. Mesoplodon layardii (Gray, 1865)

LAYARD'S BEAKED WHALE, STRAP-TOOTHED WHALE

Listed as Tasmanian by Lord and Scott (p. 282), Iredale and Troughton (p. 62), Pearson (p. 179). Skeleton from Recherche Bay, D'Entrecasteaux Channel, Southern Tasmania, secured in 1925, described by Lord and Scott (1927, p. 87). Recorded from South Australia by Waite (1922), Hale (1931 (a)).

No. 13. Mesoplodon grayi Haast, 1876

HAAST'S, OR SOUTHERN, BEAKED WHALE, SMALL-TOOTHED WHALE

Included by Lord and Scott (p. 283); but no records cited. 'South Australia, Tasmania, Victoria' (Iredale and Troughton, p. 62): South Australian records by Waite (1922) and Hale (1932). 'South Coast of Australia. Southern Pacific generally, including New Zealand and Patagonia' (Pearson, p. 180).

Genus Berardius Duvernoy, 1851

No. 14. Berardius arnouxi Duvernoy, 1851

ARNOUX'S WHALE, PORPOISE WHALE

No Tasmanian records. Lord and Scott (1924, p. 284) express the opinion that this species visits our coasts. Not noted by Iredale and Troughton, or by Pearson.

Family DELPHINAPTERIDAE

Genus Delphinapterus Lacépède, 1804

No. 15. Delphinapterus leucas (Linné, 1758)

BELUGA, WHITE WHALE

Not included by Lord and Scott (1924), or by Pearson: included, as a bracketed entry, by Iredale and Troughton (p. 62), as D. kingii (Gray, 1827). Entry based on Delphinus leucas Linné, 1758, recorded by Péron (1807, p. 217) from seas south of Tasmania; and on Delphinus (Delphinapterus) kingii Gray, 1827, coasts of Australia. The latter reference, in particular, has been generally doubted (Beddard, 1900), and it is usually stated the species is an exclusively arctic one. See, however, reference by Lord and Scott (1920, p. 4) to a Delphinapterus (skull?), stated to have been forwarded, during the last century, by Dr W. L. Crowther to the Royal College of Surgeons, London, as part of the large collection he donated to that institution.

Genus Orcinus Fitzinger, 1860

No. 16. Orcinus orca (Linné, 1758)

KILLER

Listed as Tasmanian by Lord and Scott (1924, p. 286) as *Orea gladiator* (Bonnaterre, 1789); by Pearson (p. 186) as *Oreinus orea* (Linné, 1758); by Iredale and Troughton (p. 63) as *Grampus orea* (Linné, 1758). Osteology of Tasmanian material described and figured by Lord and Scott (1920, p. 9, pl. II-VIII). The synonymic *Orea tasmanica* Beneden and Gervais, 1880 has Tasmania as typelocality.

Genus Pseudorca Reinhardt, 1862

No. 17. Pseudorca crassidens (Owen, 1846)

FALSE KILLER, TASMANIAN BLACKFISH

Tasmania—see Lord and Scott (1924, p. 287), Ircdale and Troughton (p. 63), Pearson (p. 187). Orca meridionalis Flower, 1865, a synonym of this species, has Tasmania as type-locality. Skeleton of Tasmanian specimen from Adventure Bay, Bruny Island, described and illustrated by Lord and Scott (1920, p. 7, pl. I-II). School stranded at Stanley in 1936 recorded by Pearson (p. 188), and noted below.

Genus Globicephalus Hamilton, 1836

No. 18. Globicephalus melas (Traill, 1809)

PILOT WHALE, BLACKFISH

Listed as Tasmanian by Lord and Scott (1924, p. 288); by Iredale and Troughton (p. 64), as *G. ventricosus* (Lacépède, 1804); and by Pearson (p. 189), who records the stranding of a large school at Stanley in 1935 (see below). Osteology of Tasmanian specimens discussed and illustrated by Lord and Scott (1920, p. 14, pl. IX).

Genus Delphinus Linné, 1758

No. 19. Delphinus delphis (Linné, 1758)

COMMON DOLPHIN

Common in Tasmanian waters—see Lord and Scott (1924, p. 289), Iredale and Troughton (p. 65), Pearson (p. 181). Tasmanian skeletons described by Flower (1884): Lord and Scott (1921) give figures of skeletons, skulls, animals. Tasmania is the type-locality of the synonymic Eudelphinus tasmanicusis Beneden and Gervais, 1880. Articulated specimen and complete disarticulated specimen in this Museum.

Genus Stenella Gray, 1866

No. 20. Stenella pseudodelphis (Schlegel, 1841)

SLENDER-BEAKED DOLPHIN

Lord and Scott (p. 292), who list this species as *Pseudodelphis attenuatus* Gray, 1846, remark of it, 'No recent captures of this whale have been recorded, and our material, which does not run to complete skeletons, dates from Dr W. Crowther's day'. Recorded as Tasmanian by Iredale and Troughton (p. 66) as *S. attenuata* (Gray, 1846). Included by Pearson (p. 182): distribution given as 'Temperate, and sub-tropical seas of southern hemisphere', without actual Tasmanian records.

Genus Lagenorhynchus

No. 21. Lagenorhynchus obscurus (Gray, 1828)

DUSKY, OR OBSCURE, DOLPHIN

Recorded as Tasmanian by Iredale and Troughton (p. 67); and by Pearson, who notes (p. 183) the presence of a skull in the Tasmanian Museum, Hobart. Lord and Scott (1924, p. 290) list *L. fitzroyi* (Waterhouse, 1838), and mention a mounted Tasmanian specimen. Iredale and Troughton (p. 67) relegate this reference to the synonymy of *L. obscurus*; on the other hand, Wilson (1907, p. 9, fig. 7) has figured 'an undescribed dolphin' from the Southern Ocean, which

Lillie (1915, p. 123), who states it seems to be confined to a comparatively narrow band of the Southern Ocean between Lat. 65° S. and Lat. 54° S., has named L. wilsoni, but which Liouville (1933, p. 165, pl. VIII-IX) identifies as L. fitzroyi. There is some reason to believe that the specimen noted by Lord and Scott may perhaps be some species other than L. obscurus: if so, it may possibly be L. fitzroyi.

Genus Lissodelphis Gloger, 1841

No. 22. Lissodelphis peronii (Lacépède, 1804)

PERON'S DOLPHIN

Lord and Scott do not notice this species: Iredale and Troughton (p. 67) give 'Southern Australian Scas'. Pearson (p. 184) observes 'the few recorded observations of this species limit its distribution between 42° S. and 47° S. in the South Pacific and the seas around Tasmania'. Species based on Péron's specimen killed in 1802 in Lat. 44° S. and Long. 141° E. Specimens seen by the *Terra Nova* Expedition in 1910 in Lat. 42° 51′ S., Long. 153° 56′ E. (Lillie, 1915, p. 121).

Genus Tursiops Gervais, 1855

No. 23. Tursiops truncatus (Montagu, 1815)

BOTTLE-NOSED DOLPHIN

The number of species of *Tursiops* in Tasmanian waters is doubtful. Lord and Scott (1924, p. 291) list, and (1920, p. 96, pl. XXIII-XXV) deal with osteology of, *Tursiops tursio* [*T. tursio auctorum* — *T. truncatus* (Montagu, 1815)], of which they recognize a distinct (not subspecificially named) 'southern form', and state there is some evidence of the occurrence in Tasmania of a second species [i.e., *T. catalania* (Gray, 1862)]. Iredale and Troughton (p. 68) give full specific rank to Lord and Scott's 'southern form' as *T. maugeanus*, and also list as Tasmanian *T. catalania*. Pearson (p. 185) lists *T. truncatus* only.

Lord and Scott 1924 thus include some 22 species, while Pearson (1936) deals with 20 species: Iredale and Troughton (1934) specifically record as Tasmanian 16 species, while if no. 15 ('Australian Seas') and no. 22 ('Southern Australian Seas') be regarded as Tasmanian, the total amounts to 18. Of the 23 species here enumerated 15—nos 1, 2, 5, 7, 9, 11, 12, 13, 16, 17, 18, 19, 20, 21, 23—are common to the three lists, and may almost certainly be regarded as Tasmanian. Of the remainder, nos 3, 4, 6, seem highly probable: for no. 8, not listed as Tasmanian by Iredale and Troughton, there are definite records: nos 10 and 14 are decidedly doubtful: nos 15 and 22 may probably, on recorded localities, legitimately be included in the Tasmanian lists. A Ziphiid whale that may perhaps occur in Tasmanian waters is the recently described Tasmacetus shepherdi Oliver, 1937—see remarks on this species below (following key).

During the greater part of last century, both Bay Whaling and Open-Sea Whaling flourished in and around Tasmania, reaching a peak round about 1850-1860, (in 1848 there were 37 whalers, of a total tonnage of 8,614 tons, registered and owned at Hobart Town). For information on the scope, character, and economic importance of the industry reference may be made to Crowther (1920)

Murray (1927), Dakin (1934), Philp (1936).

SOME STRANDINGS AT AND NEAR STANLEY PRIOR TO 1935

While no systematic records have hitherto been kept of Cetaeea that have come ashore on Tasmanian eoasts, it is well known that Stanley and its vicinity have been the scene of numerous strandings. It is of interest to note that, as far back as 1826, at which period whaling was an important Tasmanian industry, the Hobart Town Gazette stated, 'nearly every bay and inlet around the eoasts are swarming with whales, particularly Circular Head'. For many of the instances noted below—the list makes no pretentions to being a complete record—I am indebted to information very kindly supplied (in litt., 17.1.1936) by Mr Wilfred Partridge, Editor, The Circular Head Chronicle.

In his letter, incidentally, Mr Partridge advances, to account for the repeated strandings at Stanley, the interesting suggestion that they may perhaps be associated with the previous existence of a sea-channel between the head of the peninsula, then an island, and the present mainland, of which water-passage the whales retain an inherited memory.

'About 45 years ago one large and two small whales were stranded on Tatlow's Beach, where the Pilot Whales [stranded in 1935; see below] were, but much nearer Stanley, and had to be buried.

'About 25 years ago, when trading to Rocky Cape, [Captain W. S.] Leggett saw eareases of 65 dolphins in Port May Ann on the Cape'. Perhaps *Delphinus delphis* Linné.

In February, 1911 a school of 37 Sperm Whales, *Physeter catodon* Linné, came ashore on Perkins Island. The precise date of stranding has hitherto remained obscure. Lillie (1915) in the legend to his illustration (pl. IV) gives the month only, but in the text (p. 118) dates the stranding as occurring 'towards the end of February'. Pearson (1936, p. 175) gives February, without qualification. An inquiry made through Mr W. Partridge led to the publication in *The Circular Head Chroniele* of Wednesday, 24th March, 1937 of a statement made by Captain W. S. Leggett, after consulting his log and documents lodged by him with the Circular Head Marine Board.

'On Friday, February 10, 1911, in the aux. ketch Stanley, being accompanied by Albert Mosley, he saw the whales in Duck Bay, where they were also seen the same day by the late H. J. Emmett in the ketch Ariel and the late Wm. Freeburgh in the Dart. He is of the opinion that the whales were stranded that night. A hard easterly gale and fog foreed him into Robbins Passage for shelter. On Thursday, February 16, he and his eompanion looked on the island to see whether they could find a duck, and found, and smelt, the whales instead, and each lost his last meal. The whales were too high to see over, and the beach was covered with refuse from them for a mile or more and the oil from them kept the sea smooth three miles out from shore. The next day, Friday, February 17. Mr Leggett proceeded on his trip to King Island, and told the news there the same day, so that it was heard there before it was in Smithton, where Mr J. Smith, still living there, spread it as a result of finding the whales on Sunday, February 19. The bodies had then burst, and consequently were much smaller than when Mr Leggett found them'.

The school is stated in the literature to have comprised 37 individuals, of which 36 were males. The sex-ratio is an unusual one in this polygamous species. Harmer (1927, p. 41) observes that the specimens most commonly stranded are old males, which are generally stated to be driven from the herds by the competition of younger and more vigorous bulls, and then to take to a roving life, appearing far to the north and south of the warm equatorial waters mostly frequented by this

species. Lillie (1915, p. 118) remarks of the Perkins Island whales, 'The bulls appear to have been swimming after the cow, who took them into shallow water when the tide was receding, with disastrous results'.

Since the above was written, Mr James Harrison, Wynyard, has informed me that he personally inspected every specimen stranded; he states that there were 38 (not 37) individuals, and that all of them were males.

Estimates in contemporary newspaper accounts of the length of the Perkins Island specimens range from 30 feet to 50 feet. It seems probable the average length was in the vicinity of 35 feet, which, as old males reach a length of over 60 feet (females rarely exceeding 40 feet), suggest the majority of the individuals were between half and two-thirds fully grown. The evidence afforded by two teeth in this Museum (Q.V.M. Reg. No. 1310)—apparently the only available material, apart from photographic records, of this school—appears compatible with this estimate.

Dimensions of these two teeth, with corresponding dimensions of two average adult teeth for comparison in brackets (all linear measurements in millimetres): length (between parallel blocks) 132, 129 (150, 147), of which the extra-alveolar portion accounts for 32·5, 43·5 (44, 42); height of pulp-cavity 82·5, 81 (70, 73); girth, proximally 135, 133 (170, 164), at alveolar line 74, 80 (141, 130); base 46 by 35 (66 by 29·5, 65 by 29·5): mass 136·3, 145·9 gm. (382·5, 363·4 gm.). Indications, apart from mere size, of less mature condition are: relatively greater height of pulp-eavity, averaging 63% (48%) of vertical height; more nearly circular base; ellipticity (ratio of difference of semi-axes to major axis) averaging 0·132 (0·274); lesser mass per unit of length, averaging 1·1 (2·5) gm. per cm. Teeth of this species reach a length of 8 inches, with a transverse diameter of 3½ inches (Harmer, 1927, p. 40). A scrimshawed specimen in our Historical Collection (Reg. No. 255), with proximal end trimmed off to within 57 mm. of level of roof of pulp-eavity, and having in this condition a length of 167 mm., weighs 552·45 gm., or 3·7 times as much as the more massive of the Perkins Island specimens.

'About 12½ years ago', writes Mr Partridge (in litt., January, 1936), 'a school of dolphins landed near where the whales [i.e., 1935 school of Pilot Whales] were, and Leggett counted 70 (not 90) odd. Most of them were small enough for him to assist into the channel, where they escaped with the next tide; but five of them about 9 feet long were too much for him, and died'. Probably Delphinus delphis Linné; possibly Tursiops truncatus (Montagu).

'The huge whale stranded on Seven Mile Beach "about ten years ago" was on this end of the beach, not the Duck River end; Leggett did not go to see it, but smelt it from the apple orehard" (where the pines are now on the Stanley-Smithton road)'.

SOME STRANDINGS AT AND NEAR STANLEY FROM 1935 TO 1940

On the night of 14th-15th October, 1935 a school of Pilot Whales, Globicephalus melas (Traill), comprising probably 260-300 individuals, was stranded at Stanley. With the possible exception of one individual, all the whales came ashore on the eastern side of Circular Head peninsula, the great majority being stranded on, or near Tatlow's Beach, though some were scattered, either then or later, for several miles along the beaches further east. Standard length (tip of snout to caudal notch) of largest specimen measured (a male) 589 cm., of smallest specimen measured (a male) 231 cm. This stranding forms the subject of No. II of these studies (in the press). Notes on these specimens have been given by Pearson (1936, p. 190), who also records some dimensions of a female foetus 102 cm. long.

On 21st October, 1935 a large whale, covered with barnacles, was observed swimming 'within a few feet of' the Stanley wharf. This animal did not become stranded. Perhaps Megaptera nodosa (Bonnaterre).

A specimen of the Pigmy Right Whale, Caperea marginata (Gray), came ashore on the western beach near the cable station on, or about, Sunday, 24th November, 1935, on which date it was photographed by Mr A. R. Smith. So far as I have been able to ascertain, no mention of this whale appeared in the newspapers; and it was not till some seven months later that it came under my notice, when I was fortunate in securing the photograph by Mr A. R. Smith here reproduced (Plate IX). Although the specimen is partly buried in the sand, a good deal of the general form can be determined. The dorsal fin in this individual appears to be of decidedly greater relative height than it is usually figured; and would seem to be at least one-third as large again as the dorsal fin of South Australian specimens from Victor Harbour, Encounter Bay, and from Point Marsden, Kangaroo Island described and illustrated by Hale (1931 (b)). A further stranding of this species at Stanley is recorded below. Other Tasmanian records have already been incidentally noted above in list of Tasmanian whales: a right maxillary, with baleen, from West Sister Island, Bass Strait, is figured by Hale (1931 (b), fig 4).

About midday on Sunday, 8th March, 1936 a Sperm Whale, Physeter catodon Linné, was noticed stranded at the entrance to the old channel leading to the East Inlet. 'Mr and Miss Leggett waded out in bathers and climbed on it, as did other people at low tide, when it was in about 4 feet of water. It was still alive. There was an easterly wind. Next morning it had been washed out of the channel on the town side, and nearer the shore, and was high and dry at low tide save for the hole caused by the wash of the tide around it' (The Circular Head Chronicle, 11.3.1936). The newspaper account cited identifies the whale as Physeter macrocephalus, and states the specimen 'is 48 feet long and over 30 feet in circumference at the widest part, and the flap of the tail is about 12 feet from tip to tip'.

The disposal of this Sperm Whale proved to be a problem. On Monday, the day after it came ashore, it was anchored by Mr Leggett and Mr Freeburgh, whose inquiries regarding commercial exploitation had received no encouragement. While local opinion was that it was impracticable to deal with the carease by the method adopted in the ease of the large school of Pilot Whales stranded five months before (namely, towing it up to the 'whale cemetery' intact, and burying it in the sand), instructions from the Health Department stated this course was to be followed. Attempts made at midnight on the Tuesday and at midday on the Wednesday to move the earcase up the bay proved abortive; and when the Cabinet, in the course of a tour of the State, visited Stanley on Thursday, authority was given for the employment of the tug Australia from Burnie to tow the whale away. On Friday Mr Leggett towed it, with the aid of his motor boat, out into the bay, and, having no authority to proceed farther, anchored it there, ready for the tug. 'When the tug arrived early on Saturday morning a strong easterly wind was blowing, and a few hours later the cables parted and the earcase drifted back onto the sandspit near where the whale stranded in the first place. Later the wind increased to a gale, and on Sunday washed the carcase right over the sandspit into the channel on the other side, where it has been ever since, presumably waiting until the sea was calm enough for the motor boat to tow it away, for the tug returned to Burnie on Monday' (The Circular Head Chronicle, Wednesday, 11.3.1936). After some further delay, the whale was duly towed out to sea and turned adrift.

Incidental mention may here conveniently be made of an announcement in *The Examiner*, Launceston, on Tuesday, 2nd March, 1936, of the washing ashore on the previous Tuesday night of a 'porpoise', approximately 15 feet long, at Ulverstone, a North West Coast town some fifty miles eastward from Stanley. No definite details regarding the specimen are available, and a satisfactory determina-

tion of it is impracticable.

During an easterly gale on the night of Saturday, 30th May, 1936 about 21 whales were stranded on West Inlet Beach, Circular Head, 12 being noted as coming ashore just below Mr E. J. Anthony's residence on the Green Hills, and about 9 some two miles further along the beach, just behind the Van Dieman's Land Company's bungalow. The specimens were described in a section of the press as Pilot Whales, but proved to be the False Killer, *Pscudorca crassidens* (Owen). This stranding has been recorded by Pearson (1936, p. 188); date there given as June. Detailed observations on seven individuals, all that were accessible when the writer visited the spot, will form the subject of a later contribution in this series. Standard length of largest specimen measured (a malc) 482 cm., of smallest specimen measured (a female) 251.5 cm. A stranding of this species that occurred near the same spot just over a year later is recorded below.

The Mercury, Hobart, of Tuesday, 19th June, 1936 stated that during the week-end Messrs J. Newall, W. D. Wells, and J. Archer, in the course of a trip to the islands near Circular Head, saw about 60 whales stranded on Walker's Island. The specimens, which were described as being 'still quite fresh', were said to range from 10 to 24 feet in length. In the newspaper account they were stated to be Pilot Whales: it seems probable, however, that they belonged to the school of False Killers that came ashore at Stanley on 30th May, the majority of which, as noted above, succeeded on that occasion in regaining their freedom.

On 4th October, 1936 an undetermined whale, 28 feet long, was washed ashore on the western side of Circular Head. The specimen which was covered with barnacles, had been dead for some time before it became stranded. This may

possibly have been a Humpback, Megaptera nodosa (Bonnaterre).

At about 11 a.m. on Wednesday, 28th July, 1937 a school of whales, estimated to comprise 80-100 individuals, came ashore at West Beach, Circular Head: about half a dozen became stranded, and the remainder escaped. The writer was unfortunately unable to visit Stanley on this occasion. The stranded specimens were identified by Senior Constable J. J. Lambert, who had assisted in the examination of the Pilot Whales that came ashore in 1935 and of the False Killers stranded in May, 1936, as a second school of the latter species. The animals were stated to range from 12 to 18 feet in length.

A second specimen (see above) of the Pigmy Right Whale, Caperea marginata (Gray), came ashore—on this occasion on the eastern side of the peninsula, on Tatlow's Beach—on 23rd December, 1939. This whale, a female, 355 cm. in standard length, was secured for this Museum, and will be discussed in a future

contribution.

The Circular Head Chronicle of Wednesday, 11th January, 1939 reported the presence on the western side of Eastern Inlet some distance south of Dodge Cars (a local place-name, derived from the presence at one time of a large motor-car advertisement sign at this spot) of a black whale, 12 feet long, with a snout shaped like a duck's bill. This whale was described in the press as a species of Mesoplodon: observations kindly made, at my request, by Senior Constable J. J. Lambert, who has had experience in measuring whales, and to whom 1 am indebted for welcome assistance on several occasions, make it clear however, that it was, almost certainly, a Bottlenosed Dolphin, Tursiops truncatus (Montagu). The following data have been supplied by Senior Constable Lambert. The animal

was a male. Length from tip of snout to end of mouth 16 inches, to eye 16 inches, to blowhole 17 inches, to flipper 23 inches, to origin of dorsal fin 54 inches, to vent 5 feet 8 inches, to caudal notch 10 feet 6 inches. Base of dorsal fin 15 inches. Length of flipper 13 inches, breadth 5 inches. 'The teeth of this whale are small and close together, and are very short, about level with the gums, and number 28 on each jaw (112 altogether) . . . are not deep rooted, and appear loose in the gums . . . The whale in question appears to be an old one, judging by the way the teeth are worn and by their colour'.

On 9th February, 1940, a Sperm Whale, *Physeter catodon* Linné, stated to have been 42 fect in length, was washed ashore at Wivenhoe, near Burnie, some thirty-five miles eastward from Circular Head. It was towed out to sea the same evening by the auxiliary schooner *Milecta*, but for some time afterwards continued to be washed up on various parts of the North West Coast, being reported at Round Hill, on the Burnie side of the lighthouse, on the 12th and at Penguin on the 15th.

With the object of assisting local observers to identify whales stranded on our coasts, there is provided below a key, couched in non-technical language, with the aid of which it should be possible to make at least a provisional determination of species likely to be encountered, and, furthermore, to recognize, by a process of elimination, the presence of any rare form not dealt with in the key.

The method of using the key, which is constructed to provide a succession of alternatives, gradually leading to a decision, is as follows. In every case, refer first of all to the first bracket (marked 1, on left side of page), and decide between the alternatives there presented. A choice of the first alternative will lead (as indicated by the figure on right side of page) to bracket no. 2; while a choice of the second alternative will lead (as indicated by the figure on right side of page) to bracket no. 8. If led to bracket no. 2, then make a choice between the two alternatives there presented (this will lead, in turn, either to bracket no. 3 or to bracket no. 4): if led to bracket no. 8, then make a choice between the two alternatives there presented (this will lead, in turn, either to bracket no. 13 or to bracket no. 9). Continue the process of making a choice between two alternatives until a definite result is obtained, and the name of the whale is found.

Suppose, for example, it is desired to identify a whale having the following eharaeteristics: length about 25 fect; blowhole single; each side of lower jaw more or less straight; a dorsal fin (fin on back) present, its height about equal to length of flipper, and greater than its own base; about 10-13 teeth in each side of each jaw, the teeth being 1-2 inches in diameter; animal chiefly black, with large white patches. On referring to bracket no. 1, we see that the presence of the teeth (and single blowhole, and shape of jaws) eauses us to select the first alternative there given; and this leads us next (by the figure on the right) to bracket no. 8. As our specimen has functional teeth in both jaws and lacks grooves on the throat, we here select the second alternative, and are thus led to bracket no. 13. As our specimen has a dorsal fin (fin on back), we here select the second alternative, and are thus led to bracket no. 15. The presence of 10-13 large teeth in each side of each jaw (and absence of beak; and, perhaps, the size) results in our selecting the second alternative, and in thus being led to bracket no. 19. The normal shape of the head and the character of the teeth decide in favour of the second alternative, and we are hence led to bracket no. 20. A eomparison between the alternatives given in bracket no. 20 causes us to select the first alternative; and we have now determined our whale as a specimen of the Killer, Orcinus orca.

Attention may here be called to the following points in connexion with the key: (a) all dimensions are to be regarded as measured between parallels, and not by following curve of body, or part of body; (b) standard length means length (in a direct line) from tip of snout to notch at hinder end of body between flukes (this notch is occasionally absent, and the point of measurement then selected is the position where the notch usually occurs, namely, the middle of the hinder margin of the tail-fin); (c) the length of the animal as given in the key is about the maximum length attained by the species in question; (d) it will be observed that in some brackets (for example, bracket no. 5) more information is given in one alternative than in the other, and it will become obvious, on examining the key, that the additional information, which is enclosed in brackets, serves as a means of checking the identification of the species concerned.

KEY TO WHALES RECORDED FROM, OR LIKELY TO OCCUR IN, TASMANIAN WATERS

	TASMANIAN WATERS	
	Baleen (whalebone) present (in mouth). Teeth absent. Lower jaw very wide, its halves bowed outwards. Mouth large, about 3-3 of standard length. Blowhole double. Male smaller than female	2
1	Baleen (whalebone) absent. Teeth present. Lower jaw narrow (at least in front), the two halves forming two sides of an elongate triangle. Mouth (except in Sperm Whale) moderate or small, about \(\frac{1}{14} - \frac{1}{2} \) of standard length. Blowhole single. Male larger than female	8
2	No longitudinal grooves present on throat. Whale-bone-plates long, narrow Longitudinal grooves present on throat (numerous). Whalebone-plates short, wide	
3	No fin on back. Whalebone black; plates up to about 8 feet long, about 200 on each side. Animal usually black; sometimes black or greyish black above, lighter below. Length about 60 feet	
	Fin on back (dorsal fin) present. Whalebone ivory coloured, with dark band on outer margin; plates up to about 3 feet long, about 230 on each side. Animal black above, lighter below. Length about 20 feet	Pigmy Right Whale Caperea

marginata

Flippers very large, about 1-1 of standard length; their front edge with large tubercles, producing a scalloped effect. Large tubercles on snout. flippers, flukes, and elsewhere. Dorsal fin not normally developed; represented by a low hump: behind this the dorsal ridge running to near the tail-flukes is often crenulated. (Whalebone dark. with dark grey fringes (some of the front plates may be nearly white); plates about 2 feet long, about 400 on each side. Groves on throat 14-30, broad. Animal usually mostly black, but often marbled (sometimes extensively) with white on lower surface; flippers usually with some (frequently much) white. Animal often infested with barnacles, especially on throat and flippers. Length about 55 feet) Humpback

Humpback Megaptera nodosa

Flippers moderate or small, about 11/2 · 1/2 of standard length; their front edge without tubercles, evenly eurved. No tubercles on body or fins. Dorsal fin normally developed, though sometimes small

5

Lesser Piked Whale Balaenoptera acutorostrata

Animal about 5½-6¾ times as long as high. Flipper without white band on its outer side. Whalebone and fringes not both whitish or yellowish. Length about 55-100 feet

6

5

4

6

Dorsal fin a little in advance of the last third of body; its height greater than width of flipper; its front edge curved. Length of flipper about 1 of standard length. Grooves on throat 32-60. Length about 55 feet. (Whalebone mostly black; fringes white, or greyish, silky, curling; plates about 2 feet 6 inches long, about 290-340 on each side. Grooves on throat 32-60. Animal bluishblack, sometimes brownish, above; lighter below, with white on the throat, and sometimes also on middle of ventral surface of body)

Sei Whale

Balaenoptera borealis

Dorsal fin at, or a little in advance of, the last fourth of body; its height less than width of flipper; its front edge straight, or nearly so. Length of flipper about \$\frac{1}{2}\cdot \frac{1}{2}\$ of standard length. Grooves on throat 68-118. Length about 80-110 feet

7

Dorsal fin larger; its height more than half width of flipper, its base more than half length of flipper; its front edge nearly straight. Flipper about of standard length. The two halves of the lower jaw differently coloured (right usually white, left usually dark-coloured). Vent below anterior edge of dorsal fin. Grooves on throat 68-114. Whalebone in front of right side of mouth white; elsewhere slate-coloured, with white or yellow streaks (streaks not so apparent in young); fringes yellowish white; plates about 2 feet 6 inches long, about 270-480 on each side. Animal dark greyish slate above, white below, the colours usually sharply separated; without white spots. Length about 70 feet

Fin Whale
Balaenoptera physalus

Dorsal fin smaller; its height less than half width of flipper, its base less than half length of flipper, its front edge straight. Flipper about \$\frac{1}{6} - \frac{1}{7}\$ of standard length. The two halves of the lower jaw not differently coloured. Vent in advance of anterior edge of dorsal fin. Grooves on throat 70-118. Whalebone black, with black fringes; plates about 2 feet 6 inches long, about 270-400 on each side. Animal bluish grey, both above and below; with some small whitish spots. Length to about 100 feet

Blue Whale
Balaenoptera museulus

7

	TASMANIAN CETACEA: NO. 1 (VARIOUS ST	RANDINGS) 4	3
8	Functional teeth present in lower jaw only (some small, irregular teeth, partly imbedded in gum, sometimes occur in upper jaw). Grooves (one pair) present on throat Functional teeth present in both jaws (teeth of upper and lower jaws more or less similar). No grooves present on throat		
9	Blowhole on left side of head. Mouth on lower side of head; snout squarish or moderately pointed. More than 10 functional, more or less similar teeth in each side of lower jaw. Dorsal fin either absent or present (if present, in advance of middle of animal) Blowhole median (in line of longitudinal axis of body). Mouth at end of snout, which is produced into a beak. Only one large functional tooth in each side of lower jaw. Dorsal fin present (well behind middle of animal). No noteh at middle of hind edge of tail-fin		
10	No distinct dorsal fin (fin represented by one or more low humps). Head squarish, very large: distance from tip of snout to eye about \(\frac{1}{2} \) of standard length. Length of flipper less than (about half) length of mouth. About 16-18 stout conical teeth, about 1-3 inches in diameter, in lower jaw on each side (sometimes some smaller, often malformed, teeth in upper jaw). Animal blackish above, greyish below, the two colours not sharply separated (occasional specimens almost piebald). Length about 60 feet Well developed dorsal fin (slightly in advance of middle of animal). Head pointed, moderate: distance from tip of snout to eye about \(\frac{1}{12} \cdot \frac{1}{10} \) of standard length. Length of flipper more than (about twice) length of mouth. About 12-14 slender, recurved teeth, about \(\frac{1}{2} \) inch in diameter, in lower jaw on each side (occasionally one or two teeth in front of upper jaw). Animal black above, whitish below, the two colours sharply separated. Length about 14 feet	Physeter catodon	

One tooth (only) at tip of lower jaw on each side

Beaked Whale Ziphius	(sometimes additional small teeth, concealed below gums, present in both lower and upper jaws). Tooth conical. Eye twice as far from tip of snout as from angle of mouth. Length about 30 feet. (Teeth may be concealed in female. Well defined hump above eyes. Lower jaw projects well beyond upper. Animal usually black and white)	11
cavirostris12	One tooth (only) near middle of lower jaw on each side, (sometimes additional small teeth, concealed below gums, present in both upper and lower jaws). Tooth compressed (strap-shaped, or triangular, in side view). Eye more than twice as far from tip of snout as from angle of mouth. Length about 20 feet	
Strap-toothed	In adult specimens tooth strap-shaped, growing upwards and eurving over beak. Most of front half of animal yellowish grey; practically all the rest black. Length about 18 feet	19

Mesoplodon layardii Southern

Beaked Whale Mesoplodon grayi

13	No dorsal fin present	 14
	Dorsal fin present	 15

In adult specimens tooth compressed, triangular in side view. Whole animal black; or black above,

lighter below. Length about 18 feet

		,
1.4	Animal black above, white below, the line of separation well marked. About 43 teeth in each side of each jaw. No indication of a neck. Short beak, sharply marked off from 'forehead'. Flippers fairly long, slender, tapering towards tip. Length about 7 feet	Peron's Dolphin Lissodelphis
14 4	Animal white or cream coloured (young may be brownish grey, or mottled, or yellowish). About 8-10 teeth in each side of each jaw. A more or less evident neck. No distinct beak. Flippers short, broad across middle, bluntly pointed. Length about 18 feet	peronii White Whale Delphinapt- erus leucas
15	Teeth small; more than 20 in each side of each jaw. A more or less pronounced beak. Length probably not exceeding 15 fect	16
19	Teeth large; fewer than 20 in each side of each jaw. No distinct bcak. Length 20-30 feet	19
16	More than 45 teeth in each side of each jaw. (Teeth in each jaw about 46-51, about ½ inch in diameter. Beak very distinct and long; as much as 6 inches long in middle line. Animal usually black above; white or grey (or, in young, yellow) below: usually longitudinal yellowish and dark bands on lower parts. Length 14 feet)	Common Dolphin Delphinus delphis
	Fewer than 45 teeth in each side of each jaw	17
	More than 30 (but fewer than 45) teeth in each side of each jaw. About 5 teeth in one inch of tooth-line	18
17	Fewer than 30 (but more than 20) teeth in each side of each jaw. About 3 teeth in one inch of tooth-line. (Teeth in each side of each jaw about 22-28, about 3 inch in diameter. Beak about 3 inches long in middle line. Animal uniformly dark grey or black above, white or light grey below; the black of the flipper continuous with	
	that of the body. Length 12 feet)	Bottle-nosed Dolphin Tursicps truncatus

40	E. O. G. 50011	
18	Teeth in each side of each jaw 35-44. Upper half of animal usually wholly dark, lower half lighter. Length about 14 feet	Slender-beaked Dolphin Stenella pseudodel- phis
10	Teeth in each side of each jaw 28-34. Upper half of animal dark, usually with some white or yellowish running from ventral surface up towards dorsal fin; lower half white or yellowish. Length about 7 feet	•
	. 200	Lagen- orhynchus obscurus
19	Head much swollen, almost globular in front; 'forchead' overhanging mouth. A very short beak. Teeth about ½ inch in diameter; three consecutive teeth occupying less than 2¾ inches of tooth-line. (About 9-13 teeth in each side of each jaw. Animal mostly black, or blackish, above, sometimes with brownish patches: usually a white line along middle of front half of lower surface of body, expanding to form white or greyish patches on throat and around vent. Length about 28 feet)	
	Head not swollen, normal; 'forehead' not overhanging mouth. No distinct beak. Teeth about 3-2 inches	alus melas
	in diameter; three consecutive teeth occupying more than 24 inches of tooth-line	20
20	Vertical height of dorsal fin greater than base of that fin, and about equal to length of flipper. Flipper broad, blunt; its width decidedly more than half its length. Teeth about 1-2 inches in diameter; about 10-13 in each side of each jaw. Animal largely black, boldly marked with patches of whitish or yellowish (patches normally present on lower side of head, above eye, on side in hinder half of animal); tail-flukes black above, white below. Length about 30 feet	Orcinus
	Vertical height of dorsal fin less than base of that fin, and about two-thirds of length of flipper. Flipper narrow, pointed; its width decidedly less than half its length. Teeth about 3 inch in diameter; about 8-12 in each side of each jaw. Animal without pronounced light patches; usually black all over, sometimes lighter below. Length about 20	orca
	feet	False Killer Pseudorca crassidens

A whale not included in the above kcy that may perhaps frequent Tasmanian waters is the recently described Beaked Whale, Tasmacetus sheperdi Oliver, 1937, stranded specimens of which have been recorded from New Zealand by Oliver (1937) and by Sorenson (1940). When the present key is being used, the presence of this new species would be recognized as follows. From bracket no. 1 the presence of teeth and absence of baleen would lead the inquirer to bracket no. 8. Here a difficulty would present itself: the whale has functional teeth present in both jaws, which, from the key, would suggest reference to bracket no. 13; but, on the other hand, it possesses a pair of grooves on the throat, which would suggest reference to bracket no. 9. Hence the finding of a whale with two grooves on the throat and with functional teeth in both jaws would at once point to the probability that the specimen is a member of Dr W. R. B. Oliver's new genus Tasmacetus: such a specimen would, of course, be of considerable scientific interest, and immediate receipt by the Museum of notification of its presence would be welcome.

The following particulars will assist in the identification of Tasmacetus shepherdi. Length 20-30 fcet. Animal bluish black above, bluish grey below, the line of separation between the colours distinct. A distinct, fairly long, slender beak (about half as long as the distance from tip of snout to eye; the length of the mouth-cleft itself about two-thirds the distance from tip of snout to eye). Lower jaw projecting beyond upper. 'Forehead' probably somewhat swollen. About 16-18 (perhaps as many as 24) small teeth in each side of each jaw (the anterior teeth may be larger than the others). Blowhole crescentic, eoncavity forward. Two crescentic grooves on throat (15 inches long in a whale 20 feet in length), diverging behind. Distance from tip of snout to flippers nearly one-third of standard length. Flippers small, about two-thirds length of mouth, their width less than one-third of their length. Dorsal fin moderate; near the beginning of the last fourth of the length. Flukes large (5 feet across in a specimen 20 feet long); probably no notch between them.

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PLATE VIII

LOCALITIES OF SOME STRANDINGS OF CETACEA IN TASMANIA

- Fig. 1.—Sketch map of northern coast of Tasmania, showing general location of Circular Head Peninsula (F), the area here enclosed in a rectangle being shown on a larger scale in Fig. 2. Other marked points (at several of which strandings noted in the text have occurred) are:

 A, Hunter Island; B, Three Hummock Island; C, Walker Island; D, Robbins Island; E, Perkins Island; G, Burnie; H, Penguin; I, Ulverstone; J, Devonport; K, Tamar Heads; L, Launceston; M, Bridport; N, Clarke Island; O, Cape Barren Island.
- Fig. 2.—Sketch map of Circular Head Peninsula. Points marked are: A, North Point; B, West Point; C, Half Moon Bay; D, Lighthouse; E, Van Diemen's Land Company's Bungalow; F, Cable Station; G, Mr E. J. Anthony's residence; H, township of Stanley; I, The Nut; J, wharves and breakwater; K, Green Hills; L, West Beach; M, Tatlow's Beach; N, Mr J. Trethewie's farm; O, large sand hank, the area of which varies greatly with the state of the tide (major part of large school of Pilot Whales stranded on this bank in October, 1935); P, Dodge Cars; Q, West Inlet (or West Bay); R, East Inlet (or East Bay); S, Gray's Creek; T, road to Smithton; U, road to Forest; V, Wiltshire Junction; W, Sawyer Bay, at the mouth of Black River (the short section of the coast included in the map to the east of W constitutes the western portion of Brickmaker Bay); X, road to Launceston; Y, Trowutta railway; Z, Launceston railway.

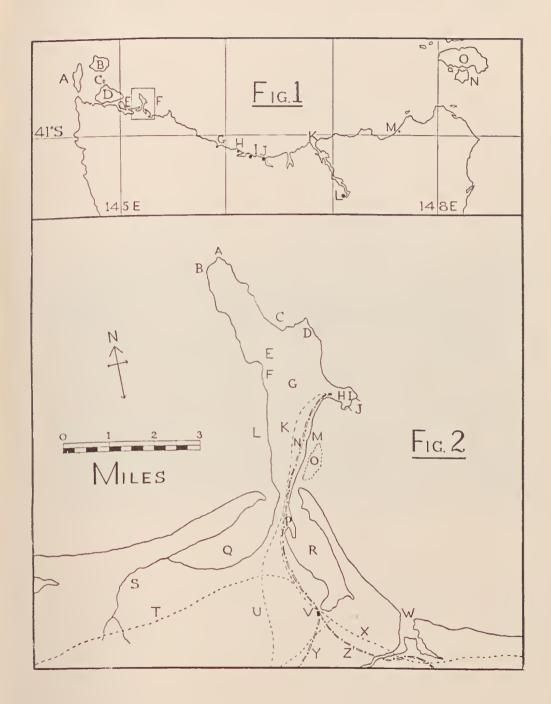


PLATE IX

PIGMY RIGHT WHALE, CAPEREA MARGINATA (GRAY, 1846)

Specimen stranded on western side of Circular Head Peninsula, near Stanley, North Western Tasmania, on or about 24th November, 1935.

(Photograph by A. R. Smith)

